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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

003646.P008

First Inventor or Application Identifier

Swain W. Porter

Title

PRIVACY ENHANCED METHODS AND APPARATUSES FOR

Express Mail Label No.

EL414969643US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents

ADDRESS TO:

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1. ☒ Fee Transmittal Form  
(Submit an original, and a duplicate for fee processing)

2. ☒ Specification [Total Pages 28]  
(preferred arrangement set forth below)

- Descriptive title of the invention
- Cross References to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to Microfiche Appendix
- Background of the invention
- Brief Summary of the invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 9]

4. Oath or Declaration [Total Pages 3]  
a. ☐ Newly executed (original copy)  
b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))  
(for continuation/divisional with Box 16 completed)

- i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR §§ 1.63(d)(2) and 1.33(b).

**\*NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).**

5. ☐ Microfiche Computer Program (Appendix)

6. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)

- a. ☐ Computer Readable Copy  
b. ☐ Paper Copy (identical to computer copy)  
c. ☐ Statement verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

7. ☐ Assignment Papers (cover sheet & document(s))  
8. ☐ 37 C.F.R. § 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney  
9. ☐ English Translation Document (if applicable)  
10. ☐ Information Disclosure Statement (IDS)/PTO - 1449 ☐ Copies of IDS Citations  
11. ☐ Preliminary Amendment  
12. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)  
13. ☒ \*Small Entity Statement(s) ☐ Statement filed in prior application, Status still proper and desired  
14. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)  
15. ☐ Other: .....

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☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: \_\_\_\_\_

Prior application Information: Examiner \_\_\_\_\_

Group/Art Unit: \_\_\_\_\_

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 17. CORRESPONDENCE ADDRESS

☐ Customer Number of Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Address

12400 Wilshire Boulevard, Seventh Floor

City

Los Angeles

State

California

Zip Code

90025

Country

U.S.A.

Telephone

(503) 684-6200

Fax

(503) 684-3245

Name (Print/Type)

Aloysius T.C. AuYeung, Reg. No. 35,432

Signature

Date

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**STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b)) -- INDEPENDENT INVENTOR**

Docket Number (Optional)  
003646.P008

Applicant, Patentee, or Identifier: Swain W. Porter  
Application or Patent No.: \_\_\_\_\_  
Filed or Issued: February 15, 2000  
Title: PRIVACY ENHANCED METHODS AND APPARATUSES FOR CONDUCTING ELECTRONIC COMMUNICATION

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

- ☒ the specification filed herewith, with title as listed above.  
☐ the application identified above.  
☐ the patent identified above.

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Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

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Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

|                        |                       |                       |
|------------------------|-----------------------|-----------------------|
| <u>Swain W. Porter</u> |                       |                       |
| NAME OF INVENTOR       | NAME OF INVENTOR      | NAME OF INVENTOR      |
| <br>                   | <br>                  | <br>                  |
| Signature of Inventor  | Signature of Inventor | Signature of Inventor |
| <br>                   | <br>                  | <br>                  |
| DATE                   | DATE                  | DATE                  |

APPLICATION FOR UNITED STATES LETTERS PATENT

FOR

**Privacy Enhanced Methods And Apparatuses For  
Conducting Electronic Communication**

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"Express Mail" label number EL414969643US

**Privacy Enhanced Methods and Apparatuses For Conducting Electronic Communications**

**BACKGROUND OF THE INVENTION**

5

1. **Field of the Invention**

The present invention relates to the field of information systems. More specifically, the present invention relates to electronic communications and privacy.

10 2. **Background Information**

Advances in computer technology have led to personalization of computers. Once reserved for large enterprises, computers have become affordable and available to the masses. Coupled that with advances in networking and telecommunication technologies, increasingly computers are being networked together. Companies are racing to put their businesses on public data networks, such as the Internet. Other non-profit and government entities are doing the same. Information has become readily available with a few mouse clicks. As a result, increasingly users go on-line to electronically communicate with each other through emails, get their news, do their shopping, meet their friends or simply other users on-line.

Currently, under the prior art, a more sophisticated user may have as many as a handful of email addresses, a work related email address hosted by the IT establishment of the user's employer, a personal email address hosted by the user's Internet access provider (as part of the "access service"), and one or more personal email addresses hosted by the free email services, such as Hotmail.com, Yahoo mail, and the like (to attract the user to visit the site). The user might use the work

related email address for work related communication only, and the other email addresses for personal communications, thereby segregating the personal communications from the scrutiny of the employer. The user might further use the personal email address hosted by the access provider for personal communications with certain group of users, such as friends and family members, while using the personal email addresses hosted by the free email service providers for general communication with other users/establishments of no particular relationship, including content and service providers, e-commerce sites, and the like.

Like its brethren of the earlier era, the “snail” mail, to many users, one of the most annoying aspects of this modern world of electronic communications is the receipt of unsolicited emails, often referred to as SPAM mails. The problem is further compounded by the fact that many Internet access, content, and service providers, e-commerce sites and the like (hereinafter, simply web sites or web site operators) routinely sell their email lists to other parties of interest. When viewing an “in-box”, there is no easy way to distinguish between the legitimate mails from the illegitimate mails. The problem is even worse, if the user consolidates all his/her emails of the various email accounts into a single “in-box” (for ease-of-use).

Thus, a more user friendly, in particular, a more private approach to conducting electronic communications is desired.

## SUMMARY OF THE INVENTION

A computer (or device of the like), on behalf of a user, registers the user with a first web site. The computer provides a first email address for use to register the user with said first web site. The computer, on behalf of the user, registers the user with a second web site. The computer provides a second email address, separate and distinct from the first email address, for use to register said user with said second web site.

In alternate embodiments, the computer, in like manner, facilitates designations of first and second email addresses for use to electronically communicate with first and second intended communication partners.

Co-related, an email service provider receives emails for the first and second email addresses of the user, and organizes the received emails by at least the email addresses, and by intended versus non-intended CP/GCP of the email addresses. The email service provider provides these received emails to the computer used the user, with the emails so characterized accordingly.

The computer presents these emails for viewing by the user, including in one embodiment, facilitation of deletion of all emails addressed to an email address received from senders other than the intended CP/GCP, via a single press of a key/control button.

## BRIEF DESCRIPTION OF DRAWINGS

The present invention will be described by way of exemplary embodiments, but not limitations, illustrated in the accompanying drawings in which like references  
5 denote similar elements, and in which:

**Figure 1** illustrates an overview of the present invention, in accordance with one embodiment;

**Figure 2** illustrates a method of the present invention in accordance with one embodiment;

10 **Figures 3a-3b** illustrate the method for a client computer to provide separate and distinct email addresses for the user of the client computer, in accordance with two embodiments;

**Figures 4a-4b** illustrate two end user interfaces associated with the operation of the present invention;

15 **Figure 5** illustrates correspondence between email addresses and intended communication partners, in accordance with one embodiment;

**Figure 6** illustrates a method of operation by the email service provider and the client computer to facilitate viewing of emails, in accordance with one embodiment; and

20 **Figure 7** illustrates an end user interface associated with the method of operation of **Fig. 6**, in accordance with one embodiment.

## DETAILED DESCRIPTION OF THE INVENTION

In the following description, various aspects of the present invention will be described. However, it will be apparent to those skilled in the art that the present invention may be practiced with only some or all aspects of the present invention. For purposes of explanation, specific numbers, materials and configurations are set forth in order to provide a thorough understanding of the present invention. However, it will also be apparent to one skilled in the art that the present invention may be practiced without the specific details. In other instances, well known features are omitted or simplified in order not to obscure the present invention.

Parts of the description will be presented using terms such as scripts, applet, end-user interfaces, icons, and so forth, commonly employed by those skilled in the art to convey the substance of their work to others skilled in the art. Parts of the description will be presented in terms of operations performed by a computer system, using terms such as registering, notifying, sending, and so forth. As well understood by those skilled in the art, these quantities and operations take the form of electrical, magnetic, or optical signals capable of being stored, transferred, combined, and otherwise manipulated through mechanical and electrical components of a digital system; and the term digital system include general purpose as well as special purpose data processing machines, systems, and the like, that are standalone, adjunct or embedded.

Various operations will be described as multiple discrete steps performed in turn in a manner that is most helpful in understanding the present invention, however, the order of description should not be construed as to imply that these operations are necessarily order dependent, in particular, the order the steps are presented.



Furthermore, the phrase “in one embodiment” will be used repeatedly, however the phrase does not necessarily refer to the same embodiment, although it may.

Referring now to **Figure 1**, wherein a block diagram illustrating an overview  
5 of the present invention in accordance with one embodiment is shown. As  
illustrated, client computer **102**, web sites **112** and **114**, and email service provider  
**100** are coupled to one another through internetworking fabric **120**. In accordance  
with the present invention, a user of client computer **102** uses the email service  
provided by email service provider **100** to enhance the privacy of its electronic  
10 communications with web sites **112** and **114**. The enhancements incorporated into  
client computer **102** and email service provider **100** to make possible the desired  
enhanced privacy will now be described in turn.

As illustrated, client computer **102** is equipped with browser **132** and  
enhanced email application **134**, which includes enhanced viewing function **144** and  
15 address manager **146**, in addition to conventional functions, such as compose  
function **142**, and send and receive function **144**. A user of client computer **102**  
uses browser **132** to visit, commerce or otherwise interact with web sites **112** and  
**114**. The nature of the interaction is a type that calls for the provision of an email  
address by the user of client computer **102** for web site **112/114** to send from time to  
20 time emails to user. As will be described in more detail below, the user of client  
computer **102** advantageously uses the enhanced functions provided to email  
application **134** (address manager **148** in particular) to provide separate and distinct  
email addresses to web sites **112** and **114**. For the illustrated embodiment, the  
email addresses are hosted by email service provider **100**, which includes enhanced  
25 functions (in cooperation with the enhanced functions of email application **134**) in  
facilitating the user of client computer **102** in quickly discerning whether the received

emails are from web sites **112** and **114** or not (i.e. the intended communication partners of the email addresses), as well as quickly disposing (if so desired) received emails from senders other than web sites **112** and **114** (e.g. a purchaser of the mail list of web site **112/114**). In one embodiment, the quick discernment and quick disposition is made possible by an automatic categorization feature provided by email service provider **100**.

Client computer **102** is intended to represent a broad range of computing devices and the like known in the art. Examples of client computer **102** include, but not limited to, desktop computers, laptop computers, palm-sized computing devices (also referred as personal digital assistants), enhanced wireless telephones with computing capabilities, set-top boxes and the like, such as those available from Hewlett Packard, Inc. of Palo Alto, CA, Nokia of Finland, Sony Corporation of N.J. Similarly, browser **132** is intended to represent a broad range of browsers known in the art, such as the Navigator from Netscape Communication of Mountain View, CA, and Internet Explorer from Microsoft of Redmond, WA. Furthermore, as will be apparent from the descriptions to follow, the target of the "interaction" may be communication partners other than web sites (e.g. friends and family members of the user of client computer **102**), and the "interaction" may be conducted through other non-browser type applications (e.g. through email application **134**). Likewise, except for the teachings of the present invention incorporated with email application **134**, email application **134** is also otherwise intended to represent a broad range of email applications known in the art, including, but not limited to, Outlook Express available from Microsoft Corporation of Redmond, WA, Lotus Notes available from IBM of Armonk, NY, and so forth.

Still referring to **Fig. 1**, web sites **112** and **114** are intended to represent a broad range of access, content as well as service providers, and the like, known in

the art. As alluded to earlier, in alternate embodiments, web sites **112** and **114** may actually be “non web server” type communication partners, to be described more fully below. In any event, web sites **112** and **114** are intended to represent at least (but not limited to) sites such as a merchandising site like Buy.com, a portal like

5 Yahoo.com, a content provider site like MP3.com, an auction site like eBay.com, a service provider site like Expedia.com, and so forth.

Email service provider **100** may be a dedicated email service provider or may also offer other types of services or contents. That is, the privacy enhanced email service may be provided as an integral part of content provision, access service, or

10 services of other kinds. The private enhanced email service may be provided by a single or a cluster of servers interconnected via local or wide area networking. Suitable computer servers include but not limited to those available from IBM of Armonk, NY, and Sun Microsystems of Mountain View, CA.

Internetworking fabric **120** is intended to represent a broad range of public

15 and private data networks constituted with hubs, routers, switches, gateways and the like, known in the art. Suitable networking equipment (i.e. hubs, routers, and so forth) includes but not limited to those available from CISCO Systems and 3COM, both of San Jose, CA. In one embodiment, network **120** is the well known Internet. Thus, the communication links between network **120** and web sites **112-114**, client

20 computer **102** and email service provider **100** may be any one of a number of communication links known in the art, including but not limited to modem connections, digital subscriber lines (DSL), Integrated Service Digital Network (ISDN), cable modem, asynchronous transfer mode (ATM), frame relay and so forth.

Before further describing the present invention, it should be noted that the

25 terms “friends” and “family members” as used herein are intended to be broadly defined. No minimal friendship or familial relationship threshold must be satisfied

before an intended communication partner can be considered a “friend” or “family member”.

Having now given an overview of the present invention, in particular the  
5 network environment, **Figure 2** illustrates a method of operation of the present  
invention, in accordance with one embodiment. As illustrated, at **202**, in response to  
a first need to provide a first intended communication partner (e.g. earlier described  
web site **112/114**, or simply a friend/family member, or a group of friends/family  
members of the user of client computer **102**), client computer **102** provides user with  
10 a first email address hosted by email service provider **100** for use by the user to  
provide to the first intended communication partner. At **204**, in response to a  
second need to provide a second intended communication partner (again, the  
partner may be web site **112/114**, a friend/family member, or a group of  
friends/family members of the user of client computer **102**), client computer **102**  
15 provides user with a second email address that is separate and distinct from the first  
email address (but preferably also hosted by email service provider **100**) for use by  
the user to provide to the second intended communication partner.

In other words, under the present invention, client computer **102** provides the  
users with multiple separate and distinct email addresses (preferably hosted by the  
20 same email service provider **100**) for use with respective communication partners  
(such as web sites) or groups of communication partners.

It is contemplated by the present invention that among the multitude of  
situations that give rise to the need for a email address by the user of client  
computer **102** is the situation where the user is registering with a web site, such as  
25 web site **112/114** (see e.g. **Fig. 4a**). Preferably, the need is automatically detected  
as well as automatically satisfied by address manager **148** of email application **134**.

The auto detection may be accomplished via any one of a number of techniques known in the art including but not limited to intercepting messages of browser **132** to determine whether a registration form including an email address field (**402** of **Fig. 4a**) is to be completed. Similarly, the auto population of the email address field (**402** of **Fig. 4a**) may also be accomplished via any one of a number of auto population techniques known in the art.

Another situation contemplated by the present invention that among the multitude of situations that give rise to the need for a email address by the user of client computer **102** is the situation when the user simply wants a email address for exclusive use with a friend/family member or a group of friend/family members. Such need may be explicitly communicated to address manager **148** of email application **134**, after the user listing all the applicable email addresses (see e.g. **Fig. 4b**, fields **404** in particular).

**Figure 3a** illustrates a method for client computer **102** to provide such separate and distinct email addresses for the user of client computer **102**, in accordance with one embodiment. At **302**, the user of client computer **102**, using email application **134**, registers with email service provider **100** for the privacy enhanced email service. In response, at **304**, email service provider **100** generates a collection of reserved email addresses hosted by email service provider **100**, and pre-provides them to address manager **148** of email application **134**. Email service provider **100** may form these separate and distinct email addresses in any one of a number of manners, e.g. by simply enumerating serial numbers and appending them to the user's identifier, such as XYZ0001@postoffice.emailservice.net, XYZ0002@postoffice.emailservice.net, and so forth (see **Fig. 5, 502**).

Thus, at **306**, when a need for an email address is “detected”, address manager **148** selects the next available pre-stored separate and distinct email addresses for use by the user of client computer **102**, and records the email address of the intended communication partner or partners (i.e. web site **112/114** or a friend/family members or a group of friends/family members). The process repeats itself with each need for an email address being satisfied by a separate and distinct pre-stored email address. Periodically, at **308**, address manager **148** contacts email service provider **100**, and notifies email service provider **100** of the email addresses of the intended communication partner or partners of each separate and distinct email address in use. At **310**, email service provider **100** updates the previously provided separate and distinct email addresses with the corresponding email addresses of the intended communication partner or partners (see also **Fig. 5, 504**). In alternate embodiments, the notification, as well as the update, may be made “immediately” as each separate and distinct email address is selected and used.

**Figure 3b** illustrates a method for client computer **102** to provide such separate and distinct email addresses for the user of client computer **102**, in accordance with another embodiment. This embodiment differs from the earlier described embodiment in that there is no pre-provision of the separate and distinct email addresses. Instead, each of the separate and distinct email address is provided to client computer **102** in real time, as it is needed.

Similar to the earlier embodiment, at **402**, the user of client computer **102**, using email application **134**, registers with email service provider **100** for the privacy enhanced email service. At **404**, when a need for an email address is “detected”, address manager **148** contacts email service provider **100** and requests for assignment of a separate and distinct email address for use with the intended

communication partner or partners. In one embodiment, the request integrally includes the email address or addresses of the intended communication partner or partners. In response, at **406**, email service provider **100** provides client computer **102** with a separate and distinct email address for use with the intended

5 communication partner or partners. In one embodiment, the separate and distinct email address may be generated in real time. In an alternate embodiment, email service provider **100** may select the separate and distinct email address from a cache of pre-generated separate and distinct email addresses for the user. The pre-generation e.g. may be done at registration time, and thereafter periodically.

10 In alternate embodiments where the email address or addresses of the intended communication partner or partners were not provided as an integral part of the request for the separate and distinct email address, the method further include **408**, where address manager **148** subsequently provides email service provider **100** with the address/addresses of the intended communication partner/partners, e.g. by  
15 way of a “confirmation” message or messages. In response, as the earlier described embodiment, email service provider **100** updates the separate and distinct email addresses accordingly, noting the email address/addresses of their intended communication partner/partners.

20 **Figure 6** illustrates a method of operation by email service provider **100**, and client computer **102** to facilitate viewing of emails under the present invention, in accordance with one embodiment. As illustrated, at **602**, email service provider **100** receives emails addressed to email addresses hosted by provider **100** for its registered users or subscribers. At **604**, email service provider **100** organizes the  
25 received emails by at least the email address addressed, and whether the emails were originated from the intended communication partner/partners or not. For the

illustrated embodiment, email service provider **100** characterizes the received emails by tagging the received emails in accordance with at least the aforementioned criteria, for subsequent delivering to client computer **102**. Email service provider **100** determines whether a received email was originated from an intended communication partner or not, by referencing email address correspondence information maintained (**Fig. 5**). All received emails addressed to an email address of a user originated from a source other than the known intended partners maintained by email service provider **100**, are considered from unintended communication partners, and characterize/tag accordingly.

At **606**, client computer **102**, using email application **134**, connects to email service provider **100** to retrieve the stored received emails (tagged in accordance with at least the email address addressed and whether the originators were intended communication partners of the email addresses). At **608**, viewing function **146** of email application **134** presents the received emails for viewing by the user, using different “in-boxes” the different email addresses, and different “folders” for the received emails originated from the intended communication partner/partners, and received emails originated from sources other than the intended partners (see **Fig. 7**).

At **610**, in response to instruction from the user, viewing function **146** deletes all received emails addressed to an email address of the user not originated from the intended communication partner or partners. For the illustrated embodiment, viewing function **146** also presents an end user interface feature, such as a command button, to enable the user to provide the delete instruction with a single press of a key/control button (see also **Fig. 7**).



Thus, it can be seen from the above description, by advantageously providing separate and distinct email addresses to a user to use to communicate with different intended communication partner or partners (such as a web site), received emails addressed to the email addresses of the user may be easily segregated, separating  
5 the emails originated from the intended partner or partners from the emails originated from other sources, thereby allowing the user to easily discern whether the intended communication partner/partners have sold or otherwise given away the user's email address. It can also be seen from the above description, the present invention advantageously allows the user to easily dispose of all the received emails  
10 from unintended sources. As a result, user experience is improved.

Accordingly, methods and apparatuses for a privacy enhanced approach to conducting electronic communications have been described. While the present invention has been described in terms of the above illustrated embodiments, those  
15 skilled in the art will recognize that the invention is not limited to the embodiments described. The present invention can be practiced with modification and alteration within the spirit and scope of the appended claims. The description is thus to be regarded as illustrative instead of restrictive on the present invention.

## CLAIMS

What is claimed is:

- 1 1. A method comprising:  
2 a computer, on behalf of a user, registering the user with a first web site;  
3 the computer providing a first email address for use to register the user with  
4 said first web site;  
5 the computer, on behalf of the user, registering the user with a second web  
6 site; and  
7 the computer providing a second email address, separate and distinct from  
8 the first email address, for use to register said user with said second web site.
- 1 2. The method of claim 1, wherein the first email address comprises a first user  
2 identifier, and the second email address comprises a second user identifier,  
3 separate and distinct from said first user identifier.
- 1 3. The method of claim 1, wherein the first email address comprises an address  
2 of an email service provider, and the second email address comprises the address  
3 of the same email service provider.
- 1 4. The method of claim 1, wherein the first email address comprises a first user  
2 identifier and an address of an email service provider, and the second email address  
3 comprises a second user identifier, separate and distinct from said first user  
4 identifier, and the address of the same email service provider.

1 5. The method of claim 1, wherein each of said providing of the first and second  
2 email addresses by the computer comprises selecting said first/second email  
3 address from a plurality of distinct email addresses pre-provided to said computer.

1 6. The method of claim 5, wherein the method further comprises the computer  
2 pre-obtaining the distinct email addresses from an email service provider.

1 7. The method of claim 6, wherein the method further comprises the email  
2 service provider pre-generating the distinct email addresses.

1 8. The method of claim 1, wherein each of said providing of the first and second  
2 email addresses by the computer comprises dynamically generating said  
3 first/second email address by said computer.

1 9. The method of claim 1, wherein each of said providing of the first and second  
2 email addresses by the computer comprises the computer dynamically obtaining  
3 said first/second email address from an email service provider.

1 10. The method of claim 9, wherein each of said dynamically obtaining comprises  
2 the email service provider selecting said first/second email address from a plurality  
3 of pre-generated distinct email addresses.

1 11. The method of claim 9, wherein each of said dynamically obtaining comprises  
2 the email service provider dynamically generating said first/second email address.

1 12. The method of claim 1, wherein the method further comprises notifying an  
2 email service provider of the usage of the first and second email address, including  
3 addresses of the first and the second web site.

1 13. The method of claim 12, wherein each of said notification is performed  
2 integrally as said first/second email address is provided to said user for use to  
3 register the user with the first/second web site.

1 14. The method of claim 12, wherein said notifications are performed  
2 subsequently in batch after said first and second email addresses were provided to  
3 said user for use to register the user with the first and the second web site.

1 15. The method of claim 1, wherein the method further comprises:  
2 receiving emails addressed to said first and second email addresses;  
3 organizing said received emails based at least in part on whether the emails  
4 are addressed to the first or the second email address.

1 16. The method of claim 15, wherein said organizing of said received emails is at  
2 least further based on whether said received emails addressed to said first/second  
3 email addresses were sent by said first/second web site or not.

1 17. The method of claim 16, wherein the method further comprises deleting all  
2 received emails addressed to said first/second email addresses not sent by said  
3 first/second web site, while preserving all undeleted emails addressed to said  
4 first/second email addresses sent by said first/second web site.

1 18. The method of claim 17, wherein said bifurcated deletion is performed in  
2 response to an instruction of said user.

1 19. The method of claim 18, wherein the method further comprises providing the  
2 user with an end user interface feature to provide said deletion instruction with a  
3 single press of a key/control button.

1 20. The method of claim 1, wherein the web site is a selected one of a content  
2 provider, a service provider and an access provider.

1 21. A method comprising:  
2 an electronic device (e-device) obtaining a plurality of distinct email  
3 addresses from an email service provider;  
4 the e-device selecting a first of said distinct email addresses to facilitate  
5 communication with a first communication partner or group of communication  
6 partners (CP/GCP); and  
7 the e-device selecting a second of said distinct email addresses to facilitate  
8 communication with a second CP/GCP.

1 22. The method of claim 21, wherein the method further comprises  
2 the e-device notifying the email service provider of said selection of the first of  
3 said distinct email addresses to facilitate communication with the first CP/GCP; and  
4 the e-device notifying the email service provider of said selection of the  
5 second of said distinct email addresses to facilitate communication with the second  
6 CP/GCP.

23. The method of claim 21, wherein the method further comprises the e-device notifying the email service provider of said selections of the first and the second of said distinct email addresses to facilitate communication with the first and the second CP/GCP.

24. A method comprising:  
an electronic device (e-device) obtaining a first email address from an email service provider;  
the e-device employing the first email address to facilitate communication with a first communication partner or group of communication partners (CP/GCP);  
the e-device obtaining a second email address, separate and distinct from said first email address, from the email service provider; and  
the e-device employing the second email address to facilitate communication with a second CP/GCP.

25. The method of claim 24, wherein the method further comprises  
the e-device notifying the email service provider of said employment of the first email address to facilitate communication with the first CP/GCP; and  
the e-device notifying the email service provider of said employment of the second email address to facilitate communication with the second CP/GCP.

26. The method of claim 25, wherein each of said notifications is made integrally when the e-device requests said first/second email address from said email service provider.

1 27. The method of claim 25, wherein each of said notifications is made after the  
2 e-device having been provided with said first/second email address from said email  
3 service provider.

1 28. A method comprising:  
2 a email service provider registering a user; and  
3 the email service provider providing at least a first and a second email  
4 address, that are separate and distinct, to the user for use by the user to  
5 communicate with a first and a second communication partner or group of  
6 communication partners (CP/GCP).

1 29. The method of claim 28, wherein the method comprises the email service  
2 provider providing a plurality of distinct email addresses to an electronic device (e-  
3 device) used by the user for the e-device to select said first and second separate  
4 and distinct email addresses.

1 30. The method of claim 28, wherein the method comprises the email service  
2 provider providing in real time said first/second email address to an electronic device  
3 used by the user.

1 31. The method of claim 28, wherein the method further comprises the email  
2 service provider receiving notification of usage of said first/second email address  
3 with said first/second CP/GCP from an electronic device used by the user.

1 32. The method of claim 28, wherein the method further comprises the email  
2 service provider receiving notification of usage of said first and second email

3 addresses with said first and second CP/GCP respectively from an electronic device  
4 used by the user.

1 33. A method comprising:  
2 a email service provider receiving emails addressed to a first and a second  
3 email address of a user; and  
4 the email service provider organizing said received emails based at least in  
5 part on said first and second email addresses, and intended versus unintended  
6 communication partners of said first and second email addresses.

1 34. The method of claim 33, wherein the method further comprises providing said  
2 emails to the user, with the emails characterized by at least said first and second  
3 email addresses, and intended versus unintended communication partners of said  
4 first and second email addresses.

1 35. A method comprising:  
2 receiving emails, from an email service provider, wherein the emails are  
3 characterized based at least in part on by email addresses, and intended versus  
4 unintended communication partners of each of said email addresses; and  
5 presenting said emails for viewing by a user, organized by at least said email  
6 addresses and said intended versus unintended communication partners of said  
7 email addresses.

1 36. The method of claim 35, wherein the method further comprises deleting all  
2 received emails addressed to the first/second email address not sent by the  
3 intended communication partner of the first/second email address.



1 37. The method of claim 36, wherein said deletion is performed in response to  
2 user instruction.

1 38. The method of claim 37, wherein the method further comprises providing the  
2 user with an end user interface feature to provide said user instruction with a single  
3 press of a key/control button.

1 39. An apparatus comprising:  
2 a storage medium having stored therein a plurality of programming  
3 instructions designed to enable the apparatus (when the programming instructions  
4 are executed) to obtain a plurality of distinct email addresses from an email service  
5 provider, to selecting a first of said distinct email addresses to facilitate  
6 communication with a first communication partner or group of communication  
7 partners (CP/GCP), and to select a second of said distinct email addresses to  
8 facilitate communication with a second CP/GCP; and  
9 a processor coupled to the storage medium to execute the plurality of  
10 programming instructions.

1 40. The apparatus of claim 39, wherein the programming instructions further  
2 enable the apparatus (when the programming instructions are executed) to notify  
3 the email service provider of said selection of the first and the second of said distinct  
4 email addresses to facilitate communication with the first and the second CP/GCP.

1 41. An apparatus comprising:

2 a storage medium having stored therein a plurality of programming  
3 instructions designed to enable the apparatus (when the programming instructions  
4 are executed) to obtain a first and a second distinct email address from an email  
5 service provider in real time, and correspondingly earmarking said first and second  
6 distinct email addresses to facilitate communication with a first and a second  
7 communication partner or group of communication partners (CP/GCP); and  
8 a processor coupled to the storage medium to execute the plurality of  
9 programming instructions.

1 42. The apparatus of claim 41, wherein the programming instructions (when  
2 executed) further enable the apparatus to notify of said employment of the first and  
3 second email addresses to facilitate communication with the first and second  
4 CP/GCP.

1 43. The apparatus of claim 42, wherein the programming instructions (when  
2 executed) enable the apparatus to make each of said notifications integrally when  
3 requesting for said first/second email address from said email service provider.

1 44. The apparatus of claim 42, wherein the programming instructions (when  
2 executed) enable the apparatus to make each of said notifications after having been  
3 provided with said first/second email address from said email service provider.

1 45. An apparatus comprising:  
2 a storage medium having stored therein a plurality of programming  
3 instructions design to enable the server (when the programming instructions are  
4 executed) to register a user, and to provide at least a first and a second email

5 address, that are separate and distinct, to the user for use by the user to  
6 communicate with a first and a second communication partner or group of  
7 communication partners (CP/GCP); and  
8 a processor coupled to the storage medium to execute the programming  
9 instructions.

1 46. The apparatus of claim 45, wherein the programming instructions (when  
2 executed) enable the apparatus to provide a plurality of distinct email addresses to  
3 an electronic device (e-device) used by the user for the e-device to select said first  
4 and second separate and distinct email addresses.

1 47. The apparatus of claim 45, wherein the programming instructions (when  
2 executed) enable the apparatus to provide in real time said first/second email  
3 address to an electronic device used by the user.

1 48. The apparatus of claim 45, wherein the programming instructions (when  
2 executed) further enable the apparatus to receive notification of usage of said  
3 first/second email address with said first/second CP/GCP from an electronic device  
4 used by the user.

1 49. The apparatus of claim 45, wherein the programming instructions (when  
2 executed) enable the apparatus to receive notification of usage of said first and  
3 second email addresses with said first and second CP/GCP respectively from an  
4 electronic device used by the user.

1 50. An apparatus comprising:

2 a storage medium having stored therein a plurality of programming  
3 instructions designed to enable the apparatus (when the programming instructions  
4 are executed) to receive emails addressed to a first and a second email address of  
5 a user, and to organize said received emails based at least in part on said first and  
6 second email addresses, and intended versus unintended communication partners  
7 of said first and second email addresses; and

8 a processor coupled to the storage medium to execute the plurality of  
9 programming instructions.

1 51. The apparatus of claim 50, wherein the programming instructions (when  
2 executed) further enable the apparatus to provide said emails to the user, with the  
3 emails characterized by at least said first and second email addresses, and intended  
4 versus unintended communication partners of said first and second email  
5 addresses.

1 52. An apparatus comprising:

2 a storage medium having stored therein a plurality of programming  
3 instructions designed to enable the apparatus (when the programming instructions  
4 are executed) to receive emails from an email service provider, the emails being  
5 characterized based at least in part on by email addresses, and intended versus  
6 unintended communication partners of each of said email addresses, and to present  
7 said emails for viewing by a user, organized by at least said email addresses and  
8 said intended versus unintended communication partners of said email addresses;  
9 and

10 a processor coupled to the storage medium to execute the plurality of  
11 programming instructions.

1 53. The apparatus of claim 52, wherein the programming instructions (when  
2 executed) further enable the apparatus to delete all received emails addressed to  
3 the first/second email address not sent by the intended communication partner(s) of  
4 the first/second email address.

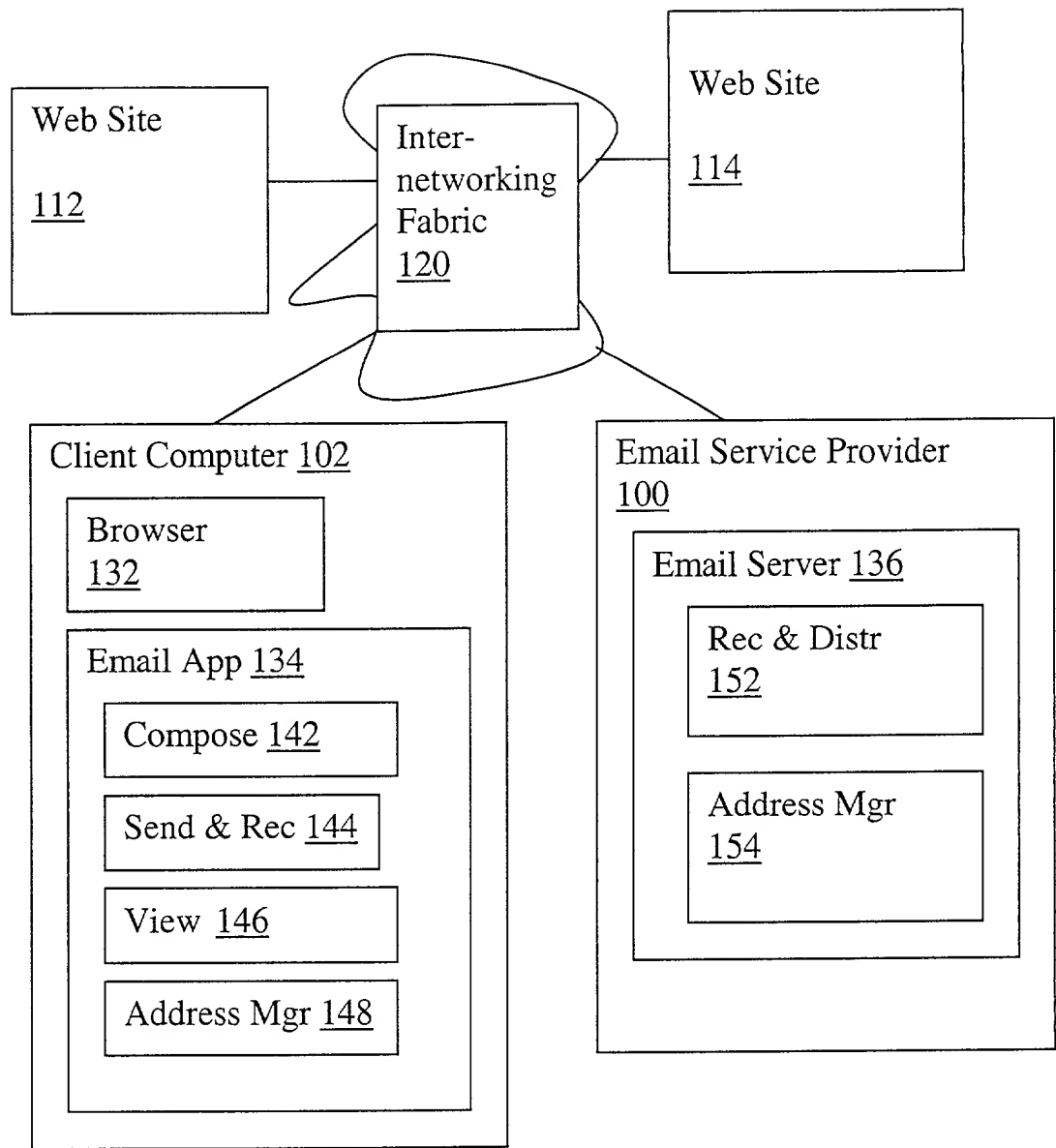
1 54. The apparatus of claim 53, wherein the programming instructions (when  
2 executed) further enable the apparatus to perform said deletion in response to user  
3 instruction.

1 55. The apparatus of claim 54, wherein the programming instructions (when  
2 executed) further enable the apparatus to provide the user with an end user  
3 interface feature to provide said user instruction with a single press of a key/control  
4 button.

## ABSTRACT OF THE DISCLOSURE

A computer (or device of the like), on behalf of a user, registers the user with  
5 a first web site. The computer provides a first email address for use to register the  
user with said first web site. The computer, on behalf of the user, registers the user  
with a second web site. The computer provides a second email address, separate  
and distinct from the first email address, for use to register said user with said  
second web site. In alternate embodiments, the computer, in like manner, facilitates  
10 designations of first and second email addresses for use to electronically  
communicate with first and second intended communication partners. Co-related,  
an email service provider receives emails for the first and second email addresses  
of the user, and organize the received emails by at least the email addresses, and  
by intended versus non-intended CP/GCP of the email addresses. The email  
15 service provider provides these received emails to the computer used the user, with  
the emails so characterized accordingly. The computer presents these emails for  
viewing by the user, including in one embodiment, facilitation of deletion of all emails  
addressed to an email address received from senders other than the intended  
CP/GCP, via a single press of a key/control button.

20



**Figure 1**

In response to a first need for a  
separate and distinct email address,  
client computer provides users with  
first such email address

202

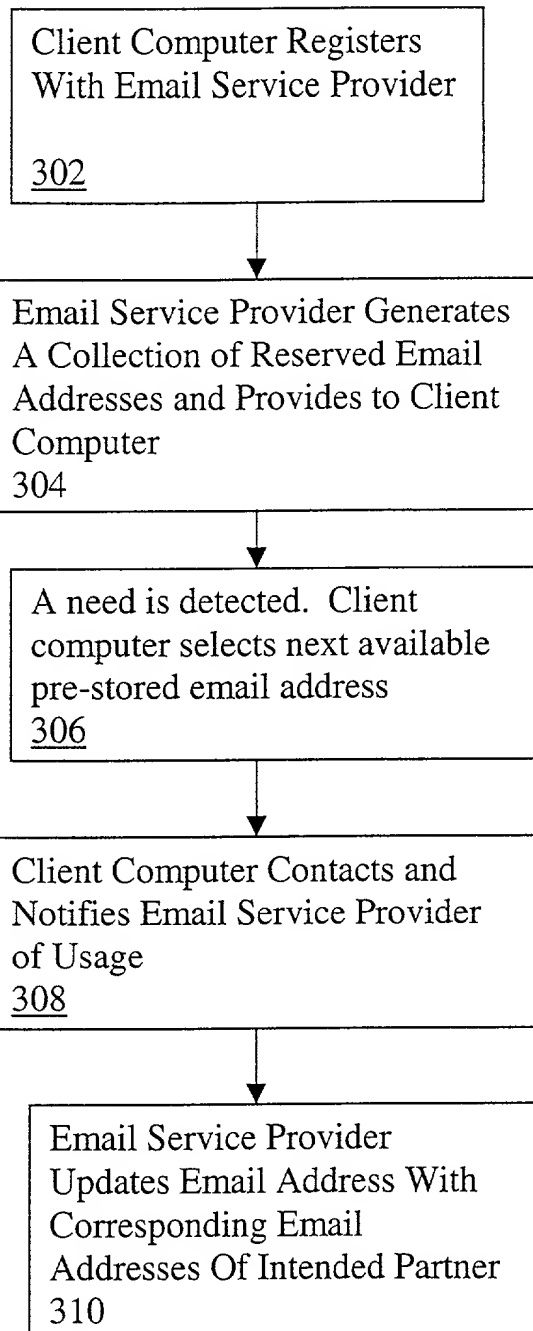


In response to a second need for a  
separate and distinct email address,  
client computer provides users with  
second such email address

204

**Figure 2**





**Figure 3a**

Client Computer Registers  
With Email Service Provider  
312



A need is detected. Client  
computer contacts Email Service  
Provider and Request email  
address  
314



Email Service Provider provides  
requested Email Address  
316



Client Computer Notifies Email  
Service Provider With  
Corresponding Email Addresses Of  
Intended Partner (Alternate  
Embodiment)  
318

**Figure 3b**

Registration with BuyWidget.com

Name

Address

City/State

Zip

Email Address

402

Submit

Figure 4a

## Request Email Address from EmailServiceProvider.Net

Please list email address of each intended partner/partners of this email address:

Partner1

404

Partner2

404

Partner3

404

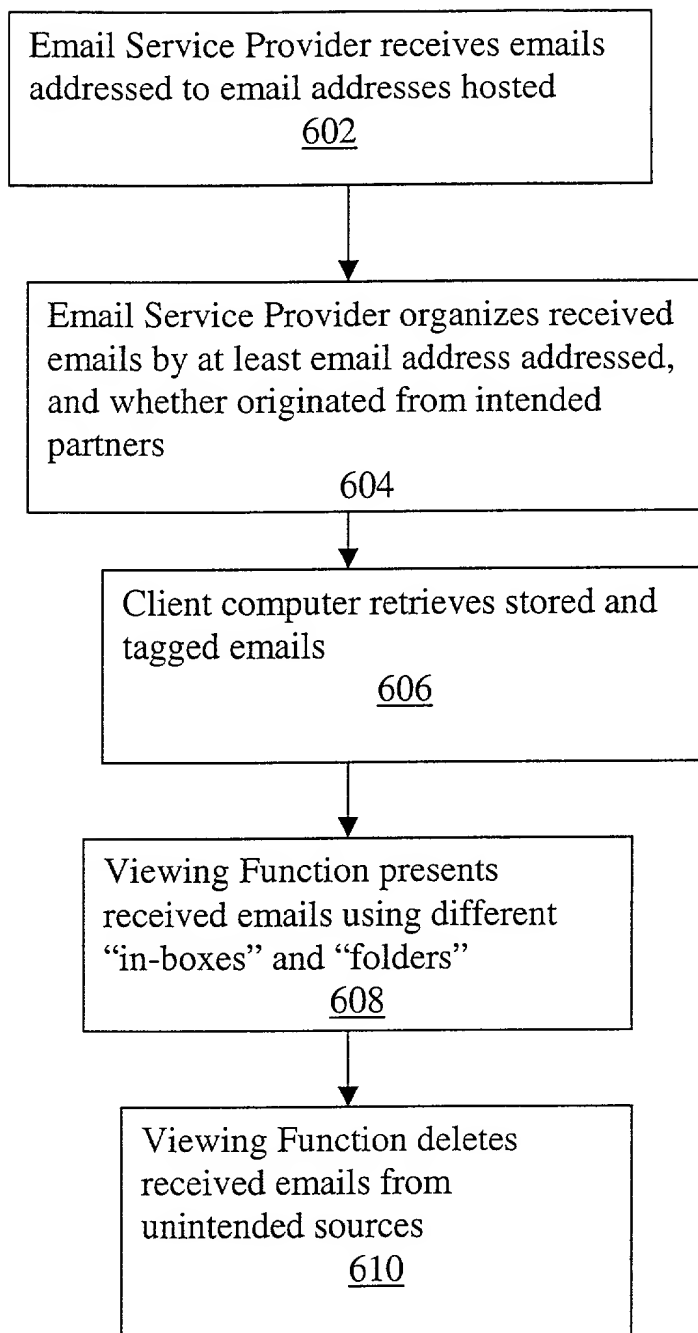
Etc.

Submit

**Figure 4b**

| Email Addresses of A User<br>All Hosted by<br>“postoffice.mailservice.net” | Email Addresses of Intended<br>Partners   |
|--|---|
| XYZ001<br><u>502</u>   | BuyWidget.com<br><u>504</u>   |
| XYZ002<br><u>502</u>   | TravelService.com<br><u>504</u>   |
| XYZ003<br><u>502</u>   | Myspouse@www.xyz.com<br><u>504</u>  |
| XYZ004<br><u>502</u>   | Mybestfriend1@www.abc.com<br>Mybestfriend2@www.def.com<br>Etc. etc.<br><u>504</u> |
| Etc  | Etc   |
|  |   |
|  |   |

**Figure 5**



**Figure 6**

## EMAIL APPLICATION – Viewing Function

Inbox for XYZ001 702

From Intended  
Source Folder 704

From Unintended  
Sources Folder 704

Inbox for XYZ002 702

From Intended  
Source Folder 704

From Unintended  
Sources Folder 704

Delete  
Unintended  
706

**Figure 7**

## DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first, and sole inventor (if only one name is listed below) or any original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

### PRIVACY ENHANCED METHODS AND APPARATUSES FOR CONDUCTING ELECTRONIC COMMUNICATION

the specification of which ☒ is attached hereto.

☐ was filed on \_\_\_\_\_ as \_\_\_\_\_

United States Application Number \_\_\_\_\_

or PCT International Application Number \_\_\_\_\_

and was amended on \_\_\_\_\_

(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d), of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

#### Prior Foreign Application(s):

| APPLICATION NUMBER | COUNTRY (OR INDICATE IF PCT) | DATE OF FILING (day, month, year) | PRIORITY CLAIMED UNDER 37 USC 119                        |
|--------------------|------------------------------|-----------------------------------|--|
|                    |                              |                                   | <input type="checkbox"/> No <input type="checkbox"/> Yes |
|                    |                              |                                   | <input type="checkbox"/> No <input type="checkbox"/> Yes |
|                    |                              |                                   | <input type="checkbox"/> No <input type="checkbox"/> Yes |

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below:

| APPLICATION NUMBER | FILING DATE |
|--------------------|-------------|
|                    |             |
|                    |             |



I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

| APPLICATION<br>NUMBER | FILING DATE | STATUS (ISSUED,<br>PENDING, ABANDONED) |
|-----------------------|-------------|--|
|                       |             |  |
|                       |             |  |
|                       |             |  |

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Send correspondence to:

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(Name of Attorney or Agent)

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Aloysius T.C. AuYeung, (503) 684-6200.

(Name of Attorney or Agent)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
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P. O. Address \_\_\_\_\_  
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## Appendix A

I hereby appoint BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, a firm including: William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. 42,261; Amy M. Armstrong, Reg. No. 42,265; Aloysius T. C. AuYeung, Reg. No. 35,432; William Thomas Babbitt, Reg. No. 39,591; Carol F. Barry, Reg. No. 41,600; Jordan Michael Becker, Reg. No. 39,602; Bradley J. Berezna, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; Gregory D. Caldwell, Reg. No. 39,926; Ronald C. Card, Reg. No. 44,587; Thomas M. Coester, Reg. No. 39,637; Donna Jo Coningsby, Reg. No. 41,684; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Robert Andrew Diehl, Reg. No. 40,992; Matthew C. Fagan, Reg. No. 37,542; Tarek N. Fahmi, Reg. No. 41,402; James Y. Go, Reg. No. 40,621; James A. Henry, Reg. No. 41,064; Willmore F. Holbrow III, Reg. No. 41,845; Sheryl Sue Holloway, Reg. No. 37,850; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; Dag H. Johansen, Reg. No. 36,172; William W. Kidd, Reg. No. 31,772; Eric T. King, Reg. No. 44,188; Erica W. Kuo, Reg. No. 42,775; Michael J. Mallie, Reg. No. 36,591; Paul A. Mendonsa, Reg. No. 42,879; Darren J. Milliken, Reg. No. 42,004; Chun M. Ng, Reg. No. 36,878; Thien T. Nguyen, Reg. No. 43,835; Thinh V. Nguyen, Reg. No. 42,034; Dennis A. Nicholls, Reg. No. 42,036; Lisa A. Norris, Reg. No. 44,976; Daniel E. Ovanezian, Reg. No. 41,236; Babak Redjaian, Reg. No. 42,096; William F. Ryann, Reg. No. 44,313; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Jeffrey S. Smith, Reg. No. 39,377; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Vincent P. Tassinari, Reg. No. 42,179; Edwin H. Taylor, Reg. No. 25,129; George G. C. Tseng, Reg. No. 41,355; Joseph A. Twarowski, Reg. No. 42,191; Lester J. Vincent, Reg. No. 31,460; Glenn E. Von Tersch, Reg. No. 41,364; John Patrick Ward, Reg. No. 40,216; Charles T. J. Weigell, Reg. No. 43,398; Kirk D. Williams, Reg. No. 42,229; James M. Wu, Reg. No. P45,241; Steven D. Yates, Reg. No. 42,242; and Norman Zafman, Reg. No. 26,250; my attorneys; and Andrew C. Chen, Reg. No. 43,544; Justin M. Dillon, Reg. No. 42,486; Paramita Ghosh, Reg. No. 42,806; Sang Hui Kim, Reg. No. 40,450; and John F. Travis, Reg. No. 43,203; my patent agents, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (714) 557-3800, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.